

ABSTRACT

Carbon dioxide may be used to adjust the electrical properties of papermaking compositions. Such papermaking compositions may contain a colloid phase, an aqueous phase, and optionally, pulp fibers. Examples of electrical properties whose values may be adjusted include zeta potential, electrical charge demand, conductivity, and streaming potential. The carbon dioxide may be introduced at many different points in a papermaking process, including calcium carbonate slurry feeds, pulp fiber slurries, diluted pulp fibers slurries, broke, and whitewater. When a value or range of values based upon an electrical property is predetermined, such as an optimal value or range, introduction of carbon dioxide may be used to adjust the value such that it is closer to the predetermined value.